

Tuesday, June 06, 2017 4:57:33 PM

162458

Item ID: 646.4001

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: AS350 Cable Cutter System

Stop *NS2*

Start Date: 6/6/2017 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 6/14/2017 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals:

Process Plan:

DAS

21

9-89

Date:**Tooling:****Date:**

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : ☐						
Misidentified ☐	☐	Past Due ☐							

Work Order ID 162458

Tuesday, June 06, 2017 4:57:33 PM

162458

Page 2

Item ID: 646.4001

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 6/14/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <i>Fg102</i>	0.00							
130	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 646.4001 Location: _____								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.10							
Quality Control									

DAS
28
9-89

JUN 23 2017

17/6/27 *JD*DAS
21
9-89

JUN 26 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Monday, June 05, 2017 4:53:53 PM

Page 226

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.10.23 NEW ISSUE DD VERF:JLM
IPP REV:B 15.01.08 AS PER DWG REV.B DD VERF:JLM IPP
REV:C 16.01.07 AS PER DWG REV.C DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

600.0129

Purchased

No

100

f

264.0000

8

8

**

JUN 21 2017

600 0129

VHB TAPE 75935A651

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK096

264

m135867

48

m137700

216

DAS
6
9-89

600.0990

Purchased

No

100

Each

24.0000

1

1

**

600 0990

Magnabond 6398 Part A Size 112 ml

248
2/6/2018

DAS
28
9-89

Location

Loc Qty

Loc Code

PKG

24

M136586

1

M136862

1

M137073

9

M137495

12

M134249

1

1/1/2017

DAS
27
9-89

Picklist Print

Monday, June 05, 2017 4:53:53 PM

Page 227

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

600.0991 Purchased No

100 Each 24.0000 1 1

600 0991

Magnabond 6398 Part B Size 112 ml

**

DAS
27
9-89

DAS
28
9-89

exp. 2/01/2018

Location

Loc Qty

Loc Code

PKG

24

m136586

2

m136862

1

m137073

9

m137495

12

m134249

0

1/1/2017

600.1012 Purchased No

100 Each 31.0000 1 1

600 1012

Sealant PR1425B2 (#654 sem)

**

DAS
27
9-89

JUN 20 2017

DAS
28
9-89

12/2017

Location

Loc Qty

Loc Code

cck017

31

m136838

1

m137321

2

m137371

14

m137699

14

600.1013 Purchased No

100 Each 90.0000 5 5

600 1013

021200-3M TAPE PRIMER 94 PRIMER 24216

**

JUN 21 2017

DAS
27
9-89

exp date 2017/12/18

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK096

90

m136345

15

m137150

25

m137500

50

Picklist Print

Monday, June 05, 2017 4:53:53 PM

Page 228

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

646.2910

Manufactured No

100

Each

6.0000

1 1

646 2910

Deflector

**

JUN 20 2017

DAS 6

DAS 27

9-89

9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK050

6

155356

6

646.3001

Manufactured No

100

Each

2.0000

1 1

646 3001

Lower Cable Cutter Assembly

**

JUN 20 2017

DAS 6

DAS 27

9-89

9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

cck018

2

160179

2

646.3110

Manufactured No

100

Each

0.0000

2/2/2019 1 1

646 3110

Channel

**

159544

JUN 21 2017

DAS 6

DAS 27

9-89

9-89

646.3210

Manufactured No

100

Each

8.0000

1 1

646 3210

Support

**

JUN 20 2017

DAS 6

DAS 27

9-89

9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

cck020

8

155378

2

157802

6

646.3301

Manufactured No

100

Each

7.0000

1 1

646 3301

Upper Cutter Assembly

**

JUN 20 2017

DAS 6

DAS 27

9-89

9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

cck018

7

159679

7

4/10/2018

Monday, June 05, 2017 4:53:53 PM

Page 229

162458

646 4001

Required Qty: 1.00

646 3510

**DAS
28
9-89**

646 3511

DAS
28
9-89

646 3610

DAS
28
9-89

1

646 3710

**DAS
28
9-89**

646 3711

DAS
28
9-89

Monday, June 05, 2017 4:53:53 PM

Shop Packet Print

Page 229

Picklist Print

Monday, June 05, 2017 4:53:53 PM

Page 230

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

646.3712 Manufactured No

100 Each

6.0000

1 1

646 3712

Clip

DAS
28
9-89

Location

Loc Qty

Loc Code

cck104

6

156884

6

100 Each

6.0000

1 1

646.3713

Manufactured No

646 3713

Gusset

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

6

156776

6

100 Each

6.0000

1 1

646.3714

Manufactured No

646 3714

Gusset

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

6

156761

6

100 Each

0.0000

2 2

646.3715

Manufactured No

646 3715

Strut Doubler

DAS
28
9-89

Location

Loc Qty

Loc Code

cck105

5

156773

5

100 Each

5.0000

1 1

646.3716

Manufactured No

646 3716

Gauge Bracket

DAS
28
9-89

**

**

**

**

**

JUN 21 2017
DAS 6
9-89

JUN 20 2017

DAS 6
9-89

JUN 20 2017
DAS 6
9-89

JUN 21 2017

DAS 6
9-89

JUN 21 2017
DAS 6
9-89

DAS 27
9-89

Picklist Print

Monday, June 05, 2017 4:53:53 PM

Page 232

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

646.3811 Manufactured No

100 Each 2.0000 1 1

646 3811

Radius Block

**

JUN 2 1 2017

DAS 6

DAS 27

9-89

9-89

DAS 28 9-89

Location

Loc Qty

Loc Code

CCK106

2

156212

2

646.3812 Manufactured No

100 Each 5.0000 2 2

646 3812

Gusset Bracket

**

JUN 2 1 2017

DAS 6

DAS 27

9-89

9-89

Location

Loc Qty

Loc Code

CCK106

5

158489

5

646.3813 Manufactured No

100 Each 7.0000 1 1

646 3813

AS350 Strut Bracket

**

JUN 2 1 2017

DAS 6

DAS 27

9-89

9-89

Location

Loc Qty

Loc Code

CCK106

7

156801

2

157787

5

646.3910 Manufactured No

100 Each 0.0000 4 4

646 3910

Shim

**

JUN 2 1 2017

DAS 6

DAS 27

9-89

9-89

DAS 28 9-89

646.3911 Manufactured No

100 Each 5.0000 1 1

646 3911

Shim

**

JUN 2 1 2017

DAS 6

DAS 27

9-89

9-89

Location

Loc Qty

Loc Code

CCK106

5

126229

5

Monday, June 05, 2017 4:53:54 PM

Shop Packet Print

Page 232

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 233

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

646.3912 Manufactured No

100 Each 39.0000 4 4

646 3912

Shim

**

JUN 21 2017

DAS

6
9-89

DAS

27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

39

159357

19

159793

20

646.3913 Manufactured No

100 Each 44.0000 1 1

646 3913

Shim

**

JUN 21 2017

DAS

6
9-89

DAS

27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

44

126060

44

646.9410 Manufactured No

100 Each 53.0000 1 1

646 9410

Shim

**

JUN 21 2017

DAS

6
9-89

DAS

27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

cck011

53

140671

53

647.0112 Manufactured No

100 Each 35.0000 2 2

647 0112

Strut Bracket

**

JUN 21 2017

DAS

6
9-89

DAS

27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK106

35

159844

35

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 234

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

647.7703

Manufactured No

100

Each

5.0000

2 2

**

JUN 20 2017

DAS
6
9-89

DAS
27
9-89

647 7703

Strut Assembly

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK114

5

159680

5

650.9201

Manufactured No

100

Each

24.0000

2 2

**

JUN 21 2017

DAS
6
9-89

DAS
27
9-89

650 9201

Eyelet Bracket Assembly

DAS
28
9-89

Location

Loc Qty

Loc Code

cck127

24

156828

14

157798

10

AN3-11A

Purchased No

100

Each

220.0000

10 10

**

JUN 21 2017

DAS
6
9-89

DAS
27
9-89

AN3-11A

Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

over003

100

m136192

100

ST349

120

153855

120

AN3-12A

Purchased No

100

Each

183.0000

2 2

**

JUN 21 2017

DAS
6
9-89

DAS
27
9-89

AN3-12A

Bolt

DAS
28
9-89

Location

Loc Qty

Loc Code

ST349

183

153854

183

Monday, June 05, 2017 4:53:54 PM

Shop Packet Print

Page 234

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 235

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-13A Purchased No

100 Each 26.0000 1 1

AN3-13A

Bolt

**

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

14

m127070

14

ST349

12

153845

12

AN316C4R

Purchased No

100 Each 7.0000 2 2

AN316C4R

Nut, Jam

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST331

7

153850

7

AN3-3A

Purchased No

100 Each 90.0000 4 4

AN3-3A

Bolt

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST350

90

m137391

8

m137597

82

AN3-4A

Purchased No

100 Each 341.0000 10 10

AN3-4A

Bolt

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST350

341

m137478

341

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 236

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-5A Purchased No

100 Each 211.0000 2 2

AN3-5A

Bolt

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST350

211

m136986

211

AN3-6A

Purchased No

100 Each 167.0000 2 2

AN3-6A

Bolt

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST350

167

m137412

167

AN44-5A

Purchased No

100 Each 17.0000 2 2

AN44-5A

Eyebolt

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST339

17

m137075

5

m137507

12

AN4C7A

Purchased No

100 Each 93.0000 2 2

AN4C7A

BOLT

**

DAS
28
9-89

Location

Loc Qty

Loc Code

OVER002

75

m137361

75

ST345

18

m136295

18

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 237

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

34R

Purchased

No

100

Each

12.0000

2

2

**

AN665-34R*

Cherry Rivet

DAS
28
9-89

Location

Loc Qty

Loc Code

ST330

12

m137361

2

m137587

10

100

Each

2.0000

36

36

**

JUN 20 2017

DAS
6
9-89

DAS
27
9-89

CCR264SS3-02

Purchased

No

CCR264SS3-02

Cherry Rivet

DAS
28
9-89

Location

Loc Qty

Loc Code

ST321

2

M137361

2

100

Each

158.0000

14

14

**

JUN 20 2017

DAS
6
9-89

DAS
27
9-89

CR3213-5-3

Purchased

No

CR3213-5-3

Cherry Rivet

DAS
28
9-89

Location

Loc Qty

Loc Code

ST319

158

m136851

2

m137320

100

m137391

56

100

Each

1,388.000

2

2

**

JUN 20 2017

DAS
6
9-89

DAS
27
9-89

MS20426AD5-7

Purchased

No

MS20426AD5-7

RIVET

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK004

703

153848

703

ST311

685

M133922

685

Monday, June 05, 2017 4:53:54 PM

Shop Packet Print

Page 237

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 238

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

MS20470AD5-5.5

Purchased

No

100

Each

638.0000

8

8

MS20470AD5-5 5

Rivet

**

JUN 20 2017

DAS 6

DAS 27

9-89

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST309

638

m134063

638

MS20470AD5-6

Purchased

No

100

Each

528.0000

8

8

MS20470AD5-6

RIVET

**

JUN 20 2017

DAS 6

DAS 27

9-89

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST309

528

124089

528

MS20470AD5-7

Purchased

No

100

Each

344.0000

3

3

MS20470AD5-7

Rivet

**

JUN 20 2017

DAS 6

DAS 27

9-89

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST309

344

123425

344

MS21042-08

MS21042L08

Purchased

No

100

Each

0.0000

2

2

MS21042-08

USE MS21042L08

DAS

**

JUN 20 2017

DAS 6

DAS 27

9-89

9-89

DAS

MS21042-3

MS21042L3

Purchased

No

100

Each

0.0000

2

2

MS21042-3

Nut

**

JUN 20 2017

DAS 6

DAS 27

9-89

9-89

DAS
28
9-89

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 239

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

100

Each

1,989.000

61

61

MS21042I 3

Nut

**

DAS

6

9-89

JUN 20 2017

DAS

27

9-89

Location

Loc Qty

Loc Code

FP001

79

m135945

79

GA

434

m134360

102

M136665

332

OVER007

1000

m134360

0

m137680

1000

ST303

476

m137321

4

m137495

472

61

DAS
28
9-89

MS21042L4

Purchased

No

100

Each

3,041.000

2

2

MS21042I 4

Nut

**

DAS

6

9-89

JUN 20 2017

DAS

27

9-89

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

51

m135058

51

OVER007

2400

m137402

400

m137544

1000

m137680

1000

ST303

580

m137321

580

2

2

DAS
28
9-89

Monday, June 05, 2017 4:53:54 PM

Shop Packet Print

Page 239

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 240

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

MS21047-3 Purchased No

100 Each 161.0000 18 18

MS21047-3

Nut Plate

**

DAS

6
9-89

JUN 20 2017

DAS

27
9-89

Location

Loc Qty

Loc Code

ST301

161

m137075

11

m137459

150

MS24693-C278

DAS

28

Purchased

No

100 Each

120.0000

5

5

MS24693-C278

Screw

**

DAS

6
9-89

JUN 20 2017

DAS

27
9-89

Location

Loc Qty

Loc Code

ST287

120

m136554

20

m137680

100

MS24694-S51

DAS

28

9-89

Purchased

No

100 Each

270.0000

5

5

MS24694-S51

Screw

**

DAS

6
9-89

JUN 20 2017

DAS

27
9-89

Location

Loc Qty

Loc Code

ST284

270

m135442

20

m136866

250

MS24694-S54

DAS

28

9-89

Purchased

No

100 Each

61.0000

2

2

MS24694-S54

SCREW

**

DAS

6
9-89

JUN 20 2017

DAS

27
9-89

Location

Loc Qty

Loc Code

ST284

61

153846

61

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 241

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

MS24694-S55

Purchased

No

100

Each

226.0000

3

3

MS24694-S55

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

ST283

226

153847

226

MS27039-08-13

Purchased

No

100

Each

275.0000

2

2

MS27039-08-13

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

ST278

275

153849

275

MS27039-1-10

Purchased

No

100

Each

485.0000

2

2

MS27039-1-10

SCREW

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

15

m129541

15

over006

300

m137597

300

ST280

170

m137164

170

MS27039-1-12

Purchased

No

100

Each

51.0000

6

6

MS27039-1-12

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

ST280

51

m136537

1

m137320

50

JUN 20 2017

JUN 20 2017

JUN 20 2017

JUN 20 2017

DAS
27
9-89

DAS
27
9-89

DAS
27
9-89

DAS
27
9-89

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 242

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-16

Purchased

No

100

Each

73.0000

24

24

MS27039-1-16

Screw

**

JUN 20 2017

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

over006

50

m137061

50

ST280

23

m137320

23

137736

MS27039-1-19

Purchased

No

100

Each

369.0000

22

22

MS27039-1-19

Screw

**

JUN 20 2017

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

80

m134134

80

ST280

289

m137361

289

22

MS27039-1-20

Purchased

No

100

Each

65.0000

2

2

MS27039-1-20

Screw

**

JUN 20 2017

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST280

65

m136554

65

2

MS27039-1-21

Purchased

No

100

Each

135.0000

4

4

MS27039-1-21

Screw

**

JUN 20 2017

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

ST280

135

m127904

135

4

DAS
28
9-89

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 243

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0332P

Purchased

No

100

Each

1,507.000

144

144

NAS1149F0332P

Washer

**

DAS

6

JUN 20 2017

DAS

27

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

275

m133709

275

ST262

1232

m137075

13

m137412

1219

NAS1149F0363P

Purchased

No

100

Each

244.0000

2

2

NAS1149F0363P

WASHER

**

DAS

6

JUN 20 2017

DAS

27

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST262

244

124555

44

m137544

200

NAS1149F0432P

Purchased

No

100

Each

1,415.000

4

4

NAS1149F0432P

WASHER

**

DAS

6

JUN 20 2017

DAS

27

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST260a

1000

M137412

1000

ST262

415

M137361

415

Monday, June 05, 2017 4:53:54 PM

Shop Packet Print

Page 243

Picklist Print

Monday, June 05, 2017 4:53:54 PM

Page 244

Work Order ID: 162458

162458

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017

Required Date: 6/14/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149FN832P

Purchased

No

100

Each

1,771.000

4

4

NAS1149FN832P

Washer

**

JUN 20 2017

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

358

M135058

208

M136182

40

M136866

110

ST263

1413

M137412

1413



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05304

SHEET 1 OF 1

DWG NO. 646.4000

REV: C

PREPARED BY J. BECKER

DATE: 02/04/16

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: AS350 CABLE CUTTERS KIT

APPROVED BY:

ENGR

MFG

QC

EFF:

NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED F/N 12.

ECR:

N/A

ACTION ITEM:

1. N/A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 162158

OK 20170602

SHEET 1, BOM IS:

12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N	TC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:						CHANGE CATEGORY	DER REVIEW REQUIRED
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM						☐ MAJOR ☒ MINOR	☐ YES ☒ NO

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

NOTES:

05304

VO	
----	--

[illegible]

DQA: _____ Date: _____



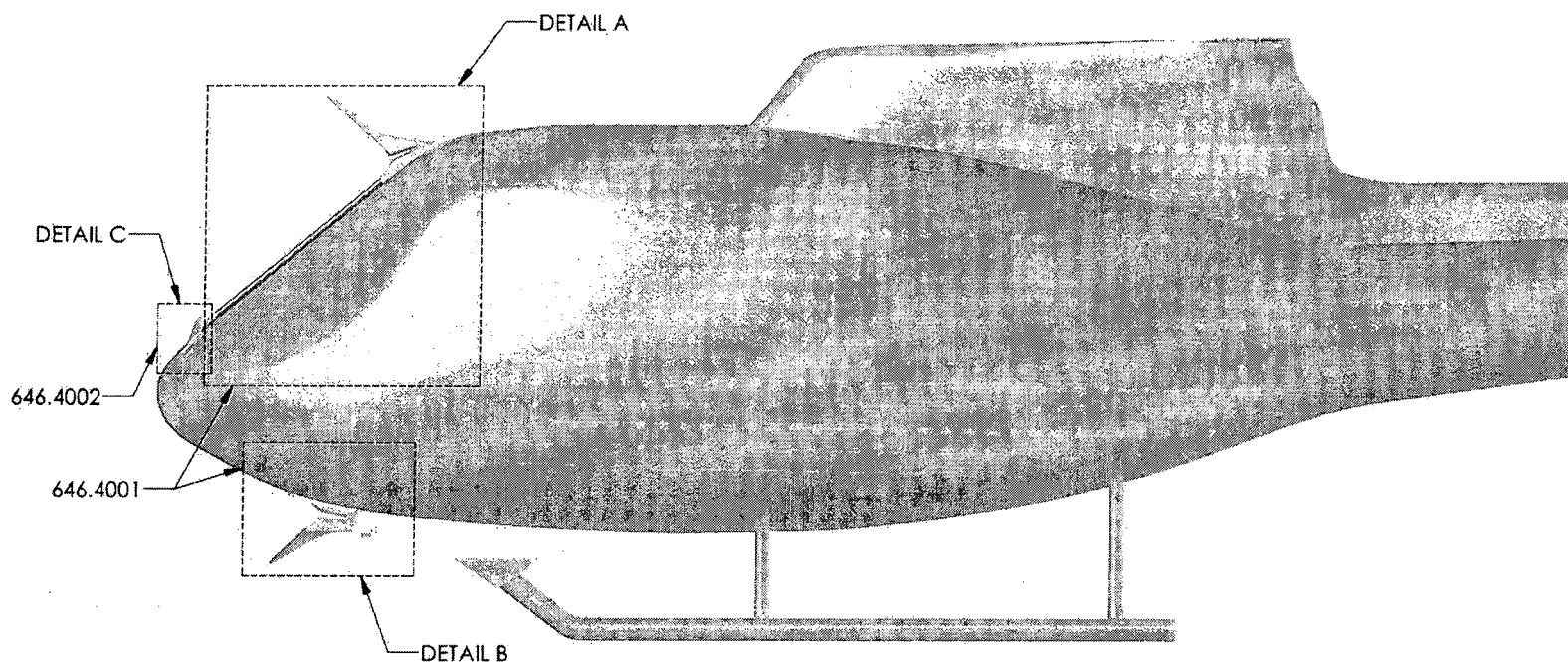
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐									
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval						
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval					
Root Cause		FAULT CATEGORY											
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐				Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐				Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
		OTHER :											

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT
WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



ORIGINAL DATE 06-27-08		DART 3030 ENTERPRISE CT. SUITE A	
DRAWN BY E. HUFF	CHECKED P. BLAVO	VISTA, CA, 92081 1760-724-5300	
DRAWING APPROVAL P. BLAVO 06-27-08		APICAL INDUSTRIES INC. DBA DART AEROSPACE	
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .0010 3 PLACE DECIMALS .0005 ANGLES ± .5°			
SHEET B	CAGE CODE 07M26	DWG. NO. 646.4000	REV. C
SCALE NONE		SHEET 2 OF 5	

DQA: _____ Date: _____



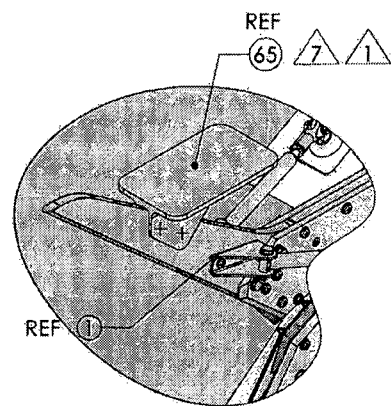
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

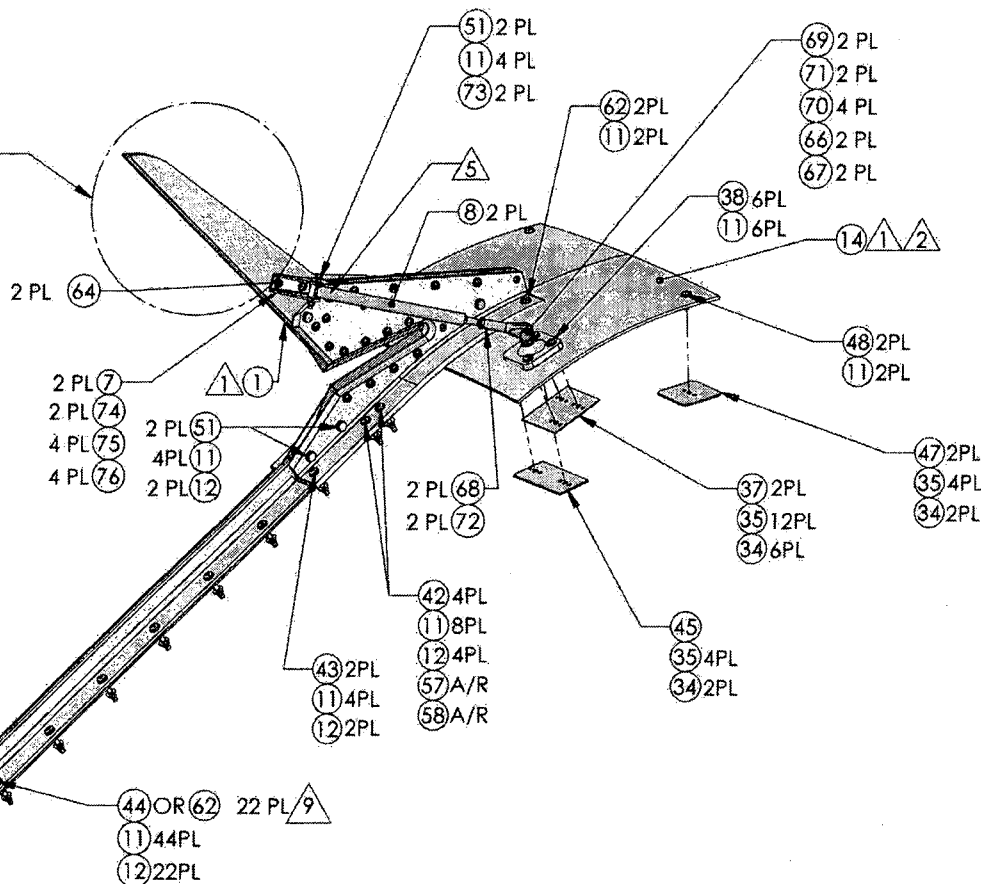
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																		
Large Fab ☐	Composite ☐	Supplier ☐																																																																			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval																																																																	
Description Work Order Deviation		Disposition																																																																			
				Completed By																																																																	
				Lead hand / Supervisor Approval Verification																																																																	
				QC / QA Coordinator Approval																																																																	
Root Cause <table style="width:100%; border: none;"> <tr> <td style="border: none;">Environment ☐</td> <td style="border: none;">No Re-verification ☐</td> </tr> <tr> <td style="border: none;">Design ☐</td> <td style="border: none;">Operator ☐</td> </tr> <tr> <td style="border: none;">Doc/Data ☐</td> <td style="border: none;">Offset/Setup ☐</td> </tr> <tr> <td style="border: none;">Equip/Tooling ☐</td> <td style="border: none;">Supplier ☐</td> </tr> <tr> <td style="border: none;">Handling/Pre ☐</td> <td style="border: none;">Training ☐</td> </tr> <tr> <td style="border: none;">Material ☐</td> <td style="border: none;">Use for Testing ☐</td> </tr> <tr> <td style="border: none;">Internal Transport ☐</td> <td style="border: none;">Poor Information ☐</td> </tr> <tr> <td style="border: none;">Tribal Knowledge ☐</td> <td style="border: none;">Rushing ☐</td> </tr> <tr> <td style="border: none;">LOA ☐</td> <td style="border: none;">Product Improvement ☐</td> </tr> <tr> <td style="border: none;">Substation ☐</td> <td style="border: none;">Process Improvement ☐</td> </tr> <tr> <td style="border: none;">Past Expiry Date ☐</td> <td style="border: none;">Manufacturing Process ☐</td> </tr> <tr> <td style="border: none;">Misidentified ☐</td> <td style="border: none;">Past Due ☐</td> </tr> </table>		Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☐	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	FAULT CATEGORY <table style="width:100%; border: none;"> <tr> <td style="border: none;">Pressure/Forced ☐</td> <td style="border: none;">Temperature/Cure ☐</td> <td style="border: none;">Power Loss/Surge ☐</td> <td style="border: none;">Positioned Wrong ☐</td> </tr> <tr> <td style="border: none;">Bending ☐</td> <td style="border: none;">Set-up ☐</td> <td style="border: none;">Folio/Program ☐</td> <td style="border: none;">Outside Dimensions ☐</td> </tr> <tr> <td style="border: none;">Centre Not Concentric ☐</td> <td style="border: none;">BOM/Route ☐</td> <td style="border: none;">Grain ☐</td> <td style="border: none;">Over/Under tolerance ☐</td> </tr> <tr> <td style="border: none;">Cracks ☐</td> <td style="border: none;">Broken/Damage/Defect ☐</td> <td style="border: none;">Weld ☐</td> <td style="border: none;">Part Incorrect ☐</td> </tr> <tr> <td style="border: none;">Crimp/Kink/Ripple/Wave ☐</td> <td style="border: none;">Inspection Incomplete/Unqualified ☐</td> <td style="border: none;">Wrong Stock Pulled ☐</td> <td style="border: none;">Part Lost/Missing ☐</td> </tr> <tr> <td style="border: none;">Cuffs ☐</td> <td style="border: none;">Contamination ☐</td> <td style="border: none;">Out of Sequence ☐</td> <td style="border: none;">Part Moved ☐</td> </tr> <tr> <td style="border: none;">Crushing ☐</td> <td style="border: none;">Countersink ☐</td> <td style="border: none;">Off-set ☐</td> <td style="border: none;">Drawing ☐</td> </tr> <tr> <td style="border: none;">Heat Treat ☐</td> <td style="border: none;">Cut Too Short ☐</td> <td style="border: none;">Mislabeled ☐</td> <td style="border: none;">Finish ☐</td> </tr> <tr> <td style="border: none;">Wave/Twist in Tube ☐</td> <td style="border: none;">Instructions Incomplete/Unclear ☐</td> <td style="border: none;">Fit/Function ☐</td> <td style="border: none;">Misread ☐</td> </tr> <tr> <td style="border: none;">Marks/Chatter ☐</td> <td style="border: none;">Drill Holes ☐</td> <td style="border: none;">Misaligned/off center ☐</td> <td style="border: none;">Turning Sequence ☐</td> </tr> </table>				Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																				
Design ☐	Operator ☐																																																																				
Doc/Data ☐	Offset/Setup ☐																																																																				
Equip/Tooling ☐	Supplier ☐																																																																				
Handling/Pre ☐	Training ☐																																																																				
Material ☐	Use for Testing ☐																																																																				
Internal Transport ☐	Poor Information ☐																																																																				
Tribal Knowledge ☐	Rushing ☐																																																																				
LOA ☐	Product Improvement ☐																																																																				
Substation ☐	Process Improvement ☐																																																																				
Past Expiry Date ☐	Manufacturing Process ☐																																																																				
Misidentified ☐	Past Due ☐																																																																				
Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																		
Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																																																																		
Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																																																																		
Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																																																																		
Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																		
Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																		
Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																		
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																		
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																		
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																		
		OTHER : _____																																																																			

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DART AEROSPACE IS PROHIBITED.



DETAIL D
TYPICAL GPS MOUNT KIT INSTALLATION

DETAIL D



DETAIL A
SHOWN ISOMETRICALLY

ORIGINAL DATE	06-27-06	DART 3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5500 APICAL INDUSTRIES INC. c/o DART AEROSPACE
DRAWN BY	CHUCKER	
S. NAME	P. BRAVO	
DRAWING APPROVAL		
P. BRAVO	06-27-06	AS350 CABLE CUTTERS KIT SIZE (CRAFT CODE) QTY. NO. B 07N26 646.4000 SCALE NONE SHEET 3 OF 5
CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED		
DIMENSIONS ARE IN INCHES		
TOLERANCES ARE:		
2 PLACES DECIMALS .003		
3 PLACES DECIMALS .000		
ANGLES ± .5°		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

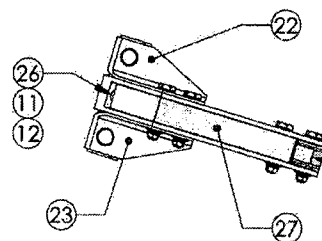
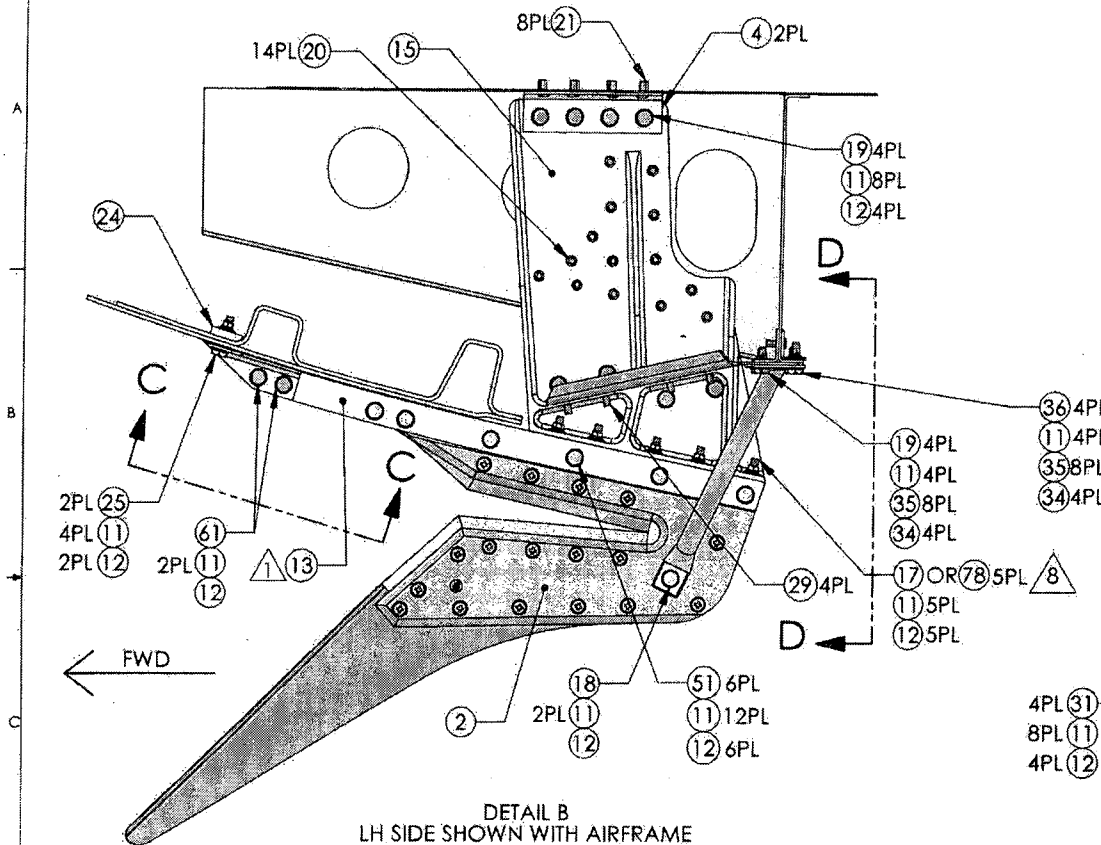


QA Closed: _____ Date: _____

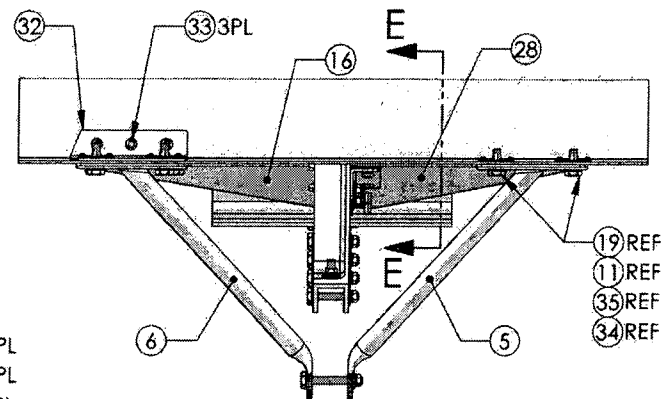
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

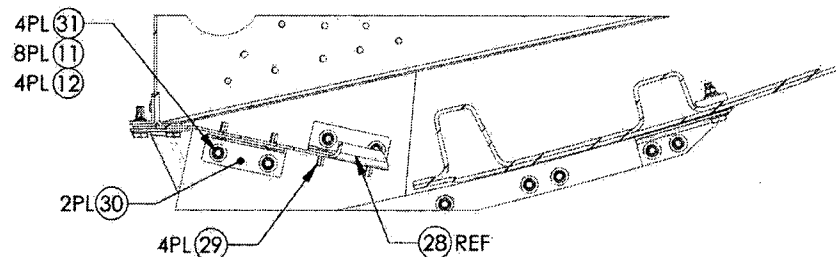
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES
DRA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT
WRITTEN PERMISSION OF APICAL INDUSTRIES DRA DART AEROSPACE IS PROHIBITED.



SECTION C-C



SECTION D-D
CUTTER HIDDEN FOR CLARITY



SECTION E-E

CANCELLED DATE 10-24-94 TIME 09:27:50 DRAWN BY: EITNER NAME: P. BRAYD DRAWING APPROVAL: I. BRAYD DATE: 10-24-94 CONTRACT NO.:		 3030 ENTERPRISE CT SUITE A VISTA, CA 92081 (760)-724-5300 AIRCRAFT SERVICES INC. 3030 DART AEROSPACE	
AS350 CABLE CUTTERS KIT			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1/2" BORE DIMENSIONAL ±0.03 3/16" HATCH DIMENSIONAL ±0.03 ANGLES ±.5°		SUB: B CAGE CODE: 07A-126 QTY: 1 SPEC. NONE	UFG. NO.: 646.4000 SHEET 4 OF 5

DQA: _____ Date: _____



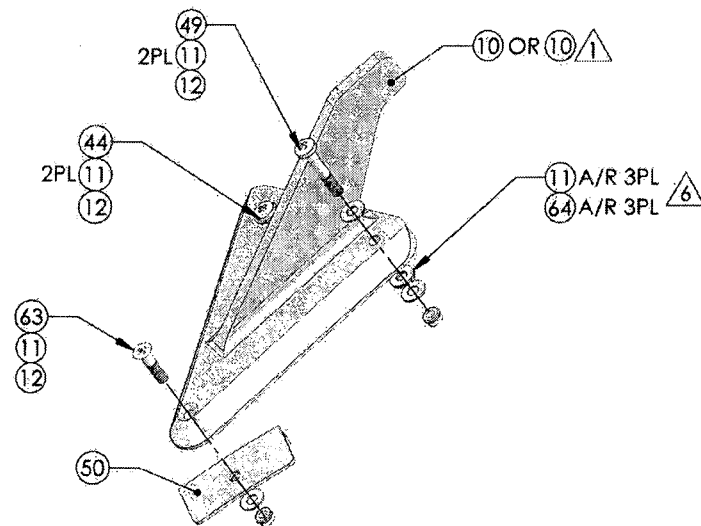
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AFICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS WRITTEN PERMISSION OF AFICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



DETAIL C
LH SHOWN EXPLODED
RH OPPOSITE

ORIGINAL DATE 10/01/08		DART 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760) 724-5300 AFICAL INDUSTRIES, INC. DBA DART AEROSPACE	
DRAWN BY S. MUIF	CHECKED P. BRAVO		
DRAWING APPROVAL P. BRAVO 08/02/08		AS350 CABLE CUTTERS KIT	
CONTRACT NO.		SHEET B	REV. C
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.010 3 PLACE DECIMALS ±.005 ANGLES ±.5°		DATE CODE 07/26	QTY. 646.4000
		SCALE NONE	SHEET 5 OF 5

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

REFERENCE ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

NOTES:

- AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

2. INSTALL F/N 14 WITH F/N 52 & 53.

- A  3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMMASTER-CARR P/N 75935A651.

4. 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

- 5 REUSE FASTENERS FROM F/N 1.

6. USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT

- 7 AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

- ⚠ INSTALL SHIM IF GEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

- B  NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(s)

05304

	5	5	5	78	601.3875	SCREW	MAGNABOND 639R PART A	
	1	1	1	77	646.9410	SHIM		
		4	4	76	601.2764	WASHER	NAS1149F030P	
		2	2	75	601.2973	LOCKNUT	M52104D-08	
		2	2	74	601.2988	SCREW	M527039-0B13	
		2	2	73	601.2943	LOCKNUT	M52104D-3	
		2	2	72	601.3128	NUT	AN316C4R	
		2	2	71	601.3209	LOCKNUT	M52104D-7A	
		4	4	70	601.2638	WASHER	NAS1149FDG32P	
		2	2	69	601.2669	BOLT	AN4C7A	
		2	2	68	601.3119	CLEVIS	AN6A5-3AR	
		2	2	67	601.3121	EYE BOLT	AN6A-5A	
		2	2	66	650.9201	EYE BRACKET ASSY		
REF	REF		REF	65	647.5701	GPS MOUNT KIT		
			2	64	601.3151	WASHER	NAS1149FO36SP	
		2		63	601.2911	SCREW	M52459H5K3	
	24	24	24	62	601.2637	SCREW	M527039-1-16	
2	2	2	2	61	601.2763	BOLT	AN3-12A	
		1	1	60	646.3913	SHIM		
		4	4	59	646.3912	SHIM		
		1	1	58	646.3911	SHIM		
		4	4	57	646.3910	SHIM		
		5	5	56	600.1013	PRIMER		
	B FT	B FT		55	600.0129	VHB TAPE		
		1	1	54	600.1012	SEALANT	PP-147S CLASS B	
		1	1	53	600.0991	MAGNABOND 639R PART B		
		1	1	52	600.0990	MAGNABOND 639R PART A		
6	10		10	51	601.2826	BOLT	A43-11A	
		2		50	646.3814	WIPER BRACKET		
		2	2	49	601.2910	SCREW	M527039-1-16	
	2		2	48	601.1365	SCREW	M527039-1-10	
	2		2	47	646.3719	DOUBLER		
		2	2	46	646.3718	CUSTOM WASHER		
	1		1	45	646.3717	DOUBLER		
	22	2	22	44	601.1948	SCREW	M527039-1-19	
		2	2	43	601.1952	SCREW	M527039-1-20	
		4	4	42	601.1956	SCREW	M527039-1-21	
493A	492A	493A	493A	490E	FIND #	PART #	MATL	SPEC.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVE
A	INCORPORATED ECNS 02199, 02351, 02719 & 02745	02/08/2010	P. BRAVO
B	INCORPORATED ECN: 03046, 03070 & 04731	11/6/2014	P. BRAVO
C	INCORPORATED ECN 03078	09/05/2015	P. BRAVO

				2		2		.41	601.2829	SCREW	MS24694SSA
				2		2		.40	601.2831	RIVET	MS20476AD5-7
				1		1		.39	646.3716	GAUGE BRACKET	
				6		6		.38	601.1953	SCREW	MS27039-1-12
			2	2		2		.37	646.3715	STRUT DOUBLER	
			2	2		2		.36	601.2824	BOLT	AN3-5A
12		36				36		.35	601.2277	RIVET	CCP9485-302
		6		18		18		.34	600.0795	NUT/PLATE	MS21047-3
		3		3		3		.33	601.2565	RIVET	MS20470AD5-7
		1		1		1		.32	646.3813	STRUT BRACKET	
		4		4		4		.31	601.2822	BOLT	AN3-3A
		2		2		2		.30	646.3812	GUSSET BRACKET	
		8		8		8		.29	601.2564	RIVET	MS20470AD5-6
		1		1		1		.28	646.3714	GUSSET	
		1		1		1		.27	646.3610	FILLER	
		3		3		3		.26	601.2830	SCREW	MS24694SS5
		2		2		2		.25	601.2825	BOLT	AN3-6A
		1		1		1		.24	646.3811	RADIUS BLOCK	
		1		1		1		.23	646.3712	CLIP	
		1		1		1		.22	646.3711	CLIP	
		8		8		8		.21	601.2832	RIVET	MS20470AD5-5
14		14		14		14		.20	601.2020	RIVET	CR3313-5-3
		4		4		4		.19	601.2823	BOLT	AN3-4A
		1		1		1		.18	601.2827	BOLT	AN3-3A
		5		5		5		.17	601.2912	SCREW	MS24694SS1
		1		1		1		.16	646.3713	GUSSET	
		1		1		1		.15	646.3210	SUPPORT	
		1		1		1		.14	646.3710	DOUBLER	
		1		1		1		.13	646.3110	CHANNEL	
14	10	8	53	6	61	12		.12	601.1624	LOCKNUT	MS21042L3
16	32	18	120	16	144	11		.11	601.1607	WASHER	NAS1111002P
						10		.10	646.3410	LH WIPER DEFLECTOR	
						9		.09	646.3411	RH WIPER DEFLECTOR	
						2		.08	647.7703	STRUT ASSY	
						2		.07	647.0112	STRUT BRACKET	
						1		.06	646.3511	STRUT	
						1		.05	646.3510	STRUT	
2		2				2		.04	646.3810	BRACKET	
						1		.03	646.2910	DEFLECTOR	
						1		.02	646.3001	LOWER CUTTER ASSY	
						1		.01	646.3301	UPPER CUTTER ASSY	
X									646.4006	LOWER CUTTER FIXED PROVISIONS	
	X								646.4005	LOWER CUTTER REMOVABLE PROVISIONS	
		X							646.4004	FIXED PROVISIONS KIT	
			X						646.4003	CABLE CUTTER #8 WITH/OUT FIXED PROVISIONS	
				X					646.4002	ASS350 WIPER DEFLECTOR KIT	
					X				646.4001	ASS350/CABLE CUTTERS KIT	
4004	4003	4024	4003	4022	4001	FIND #		PART #	DESCRIPTION	MTPL	SPEC.

Q1Y	PARTS LIST	
NEXT ASSY (5)	OFFICIAL DATE: 08-27-08 MODENA VSI DESIGNED BY: T. HICKER & HUFF P. BRAVO DRAWING APPROVED BY: BRAND 08-27-08 100% COMPLETE	3030 ENTERPRISE CT SUITE A VISTA, CA 92081 (760)-724-5300 AEROSPACIAL INDUSTRIES, INC. THE DART AEROSPACIAL
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONS: 1/16" 1/32" DECIMALS: .005 ANGLES: .5°	3030 CABLE CUTTERS KIT ASSN CAGE CODE: 646.4000 B. 07/24/16 SCALE: NONE SHEET 1 OF 5

Work Order ID 162458

Tuesday, June 06, 2017 4:57:33 PM

162458

Page 1

Item ID: 646.4001

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: AS350 Cable Cutter System

Start Date: 6/6/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 6/14/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: 

Date: **20170603**

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

646.4000

C1

JUN 16 2017

**DAS
39
9-89**

JUN 19 2017

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP 646.4001

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.03

Quality Control

United States Of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number SR02180LA

This Certificate issued to Apical Industries, Inc. dba Dart Aerospace
3030 Enterprise Court, Suite A
Vista, CA 92081

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified herein meets the airworthiness requirements of Part 27 of the Federal Aviation Regulations.*

**Certification basis is set forth in Type Certificate Data Sheet H9EU.*

Original Product Type Certificate Number: H9EU

Make: Eurocopter France

Model: AS350 C, D, D1, B, B1, B2, BA, B3

Description of Type Design Change: Installation of a Cable Cutter Kit in accordance with FAA approved Apical Master Document List, MD350-61, Revision A, dated November 25, 2008, or later FAA approved revision.

Limitations and Conditions: The installation should not be incorporated in any aircraft unless it is determined that the interrelationship between this installation and any previously approved configuration will not introduce any adverse effect upon the airworthiness of the aircraft. The approval of this modification applies to the above noted aircraft model series only. This approval requires the inspections and overhaul schedules to be performed as mandated by Apical Industries, Inc.'s Instructions for Continued Airworthiness, ICA350-61, Revision N/C, dated November 20, 2008, or later FAA accepted revision. A copy of this STC must be included in the permanent records of the modified aircraft. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: May 21, 2008

Date issued: August 7, 2014

Date of issuance: December 16, 2008

Date amended:

By direction of the Administrator



Haifa Haj-Eid
(Signature)

Haifa Haj-Eid
Supervisor, Technical and Administrative
Support Staff
Los Angeles Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.